

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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OPINION 213

Determination of the type species of the genus *Schwagerina*
von Möller, 1877 (Class Rhizopoda, Order Foraminifera)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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DETERMINATION OF THE TYPE SPECIES OF THE
GENUS "SCHWAGERINA" VON MÖLLER, 1877
(CLASS RHIZOPODA, ORDER FORAMINIFERA)

RULING :—(1) Under the *Règles*, the type species of *Schwagerina* von Möller, 1877 (Class Rhizopoda, Order Foraminifera) is *Borelis princeps* Ehrenberg, 1842, the sole nominal species cited by von Möller when he first published the name *Schwagerina*, and not the species which that author had misidentified with von Möller's species and which he had before him when he established the foregoing genus, a species which was at that time unnamed but which has since received the name *Schwagerina moelleri* Rauser-Chernousova, 1937.

(2) Having regard to the delay which occurred in dealing with this case and without prejudice to the Ruling which might have been given if this case had been dealt with promptly and therefore before the situation had developed in the way that it did subsequent to 1935, it is not desirable in existing circumstances that the Plenary Powers should be used to vary the application of the *Règles* in the present case.

(3) In view of (2) above, the under-mentioned generic names, with the type species severally specified below, are hereby placed on the *Official List of Generic Names in Zoology* as Names Nos. 646 and 647 :—(a) *Schwagerina* von Möller, 1877 (gender of name : feminine) (type species, by monotypy : *Borelis princeps* Ehrenberg, 1842); (b) *Pseudoschwagerina* Dunbar & Skinner, 1935 (gender of name : feminine) (type species, by original designation : *Schwagerina uddeni* Beede & Kniker, 1924).

(4) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 23 to 25 :—(a) *moelleri* Rauser-Chernousova, 1937, as published in the combination *Schwagerina moelleri*; (b) *princeps* Ehrenberg, 1842, as

published in the combination *Borelis princeps*; (c) *uddeni* Beede & Kniker, 1924, as published in the combination *Schwagerina uddeni*.

I.—THE STATEMENT OF THE CASE

The case of the name *Schwagerina* von Möller, 1877, was first brought to the attention of the International Commission on Zoological Nomenclature on 23rd September 1935 by Dr. Carl O. Dunbar (Yale University, Peabody Museum of Natural History, New Haven, Connecticut, U.S.A.), who, after pointing out that it had now been established that this genus had been based upon a misidentified type species, expressed the view that the introduction, as required by the Rules, of a new generic name for the generic unit hitherto known as *Schwagerina* would be "unfortunate in view of the fact that the 'Schwagerina' is widely known as a guide fossil to the Lower Permian formations throughout the Northern Hemisphere"; Dr. Dunbar had gone on to enquire whether it would be worth presenting to the Commission a request that it should "set aside the types and validate the genus *Schwagerina* in terms of the current conception". Being unable to obtain an answer to the foregoing question from the Secretary to the Commission, Dr. Dunbar felt bound strictly to apply to this case the Rules as they then existed. This led to the publication in March 1936 (*J. Paleont.* 10 : 83—91) of a paper in which, with Dr. Skinner, Dr. Dunbar proposed the displacement of *Pseudofulina* Dunbar & Skinner, 1931, by *Schwagerina* von Möller, 1877, and the introduction of the nominal genera *Pseudoschwagerina* and *Paraschwagerina* for the species till then included in the genus *Schwagerina* von Möller.

2. In May 1939 the papers relating to this and other current cases were transferred to the care of Mr. Francis Hemming who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. These documents were then given the Registered Number Z.N.(S.)87. In September 1939 the outbreak of war in Europe led to the evacuation of the records of the International Commission from London to the country as a precaution against the risk of destruction through air raids.

Some three months later Dr. Hubert B. Schenck (*Stanford University, Department of Geology, Stanford, California, U.S.A.*) wrote to the Commission (on 17th November 1939), asking that, if in the conditions of the time the Commission was in a position to proceed with its work, it should declare the generic name *Schwagerina* Möller, 1877, to be a *Nomen Conservandum*, with *Schwagerina princeps* (Möller) nec Ehrenberg as its type species. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. The present was one of the first cases to be taken up in this way, Mr. Hemming writing to Dr. Schenck in regard to it on 3rd February 1943. In his reply dated 26th April 1943, Dr. Schenck reviewed the history of this case and reached the conclusion which, he explained, was shared by Professor M. L. Thompson (*University of Kansas, Lawrence, Kansas, U.S.A.*) that, in view of the way in which the situation had developed, the best course in the interests of stability in nomenclature would be to accept *Schwagerina* von Möller, as strictly interpreted under the *Règles*, and to apply the name *Pseudoschwagerina* Dunbar & Skinner to the genus which had for so long been incorrectly known as *Schwagerina*. On behalf of Professor Thompson and himself Dr. Schenck accordingly asked that the Commission should give a ruling in this sense.

3. The following is the application so submitted to the International Commission by Dr. Schenck :—

On the Type of the genus "Schwagerina" von Möller, 1877 (Class Rhizopoda, Order Foraminifera)

By HUBERT G. SCHENCK

(*Department of Geology, Stanford University, California.*)

The present application to the International Commission in regard to the name *Schwagerina* von Möller, 1877, *N. Jahrb. Min.* 1877 : 143 was prepared in consultation with Professor M. L. Thompson, University of Kansas, Lawrence, Kansas, and, though the views

expressed in it are mine, they are shared in all essential points by him.

The following is a summary of the *Schwagerina* problem :—

(1) The name *Schwagerina* was proposed by V. von Möller in 1877 and is valid according to the International Rules, that is to say (a) it is not a homonym of any earlier generic name and (b) it is the earliest available name for either of the species which might be regarded as its type.

(2) Von Möller said that “ a typical species ” of *Schwagerina* in *Borealis princeps* Ehrenberg, 1842, *K. preuss. Akad. Wiss.*, Berlin 1842 : 274. That species accordingly thus became *Schwagerina princeps* (Ehrenberg). Later writers were unanimous in accepting this species as the genotype of *Schwagerina* von Möller, and it has been established by several subsequent workers beyond question as the genotype of this genus.

(3) The type locality of *Schwagerina princeps* (Ehrenberg) is the late Paleozoic limestone outcropping in Pinega Valley, Archangel, U.S.S.R.

(4) Ehrenberg's original specimens differ morphologically from the specimens which Möller had in hand when he named the genus *Schwagerina*.

(5) The specimens incorrectly identified by Möller as *Schwagerina princeps* (Ehrenberg) have been named *Schwagerina moelleri* by Rauser-Chernoussova, 1937, *Bull. Acad. Sci. U.R.S.S.* 1936 : 578—579.

(6) Dunbar and Skinner hold that only specimens closely similar to *Schwagerina princeps* (Ehrenberg)—not *Schwagerina princeps* (Ehrenberg) as identified by von Möller—can be correctly allocated to the restricted genus *Schwagerina* von Möller.

(7) Therefore, Dunbar and Skinner assert that specimens of *S. moelleri* Rauser-Chernoussova, 1937, and related species must be assigned to another genus which in 1935 they named *Pseudoschwagerina* Dunbar & Skinner, 1935, *J. Palaeont.* 10 : 83, with *Schwagerina uddeni* Beede & Kniker, 1924, *Univ. Texas Bull.* 2432 : 27, pl. 1 figs. 1—2, pl. 4 fig. 10, pl. 6 figs. 1—2, 5—7, as type by original designation. This species was described originally from the Wolfcamp formation, late Paleozoic, of Texas.

(8) The genus *Schwagerina*, as conceived by the original author (von Möller) who misidentified material as “ *Borealis princeps* ” Ehrenberg, had become thoroughly entrenched in the geological literature prior to 1935. Since 1935, the names *Pseudoschwagerina* Dunbar & Skinner, 1936, and *Schwagerina* von Möller, as interpreted by Dunbar & Skinner have become adopted by most workers to replace the old concept.

(9) Rauser-Chernoussova in 1937 (*Bull. Acad. Sci. U.R.S.S.* 1936 : 577—584) expressed the opinion that the International Commission

should suspend the rules in order that the generic name *Schwagerina* might be employed in the sense conceived of by von Möller and as used for fifty-nine years—from 1877 to 1936.*)

The above is an objective statement of the case—at least as nearly objective as I can make it. I have introduced no opinions, except biological ones. For example, it is an opinion that “*Borelis princeps*” Ehrenberg is generically distinct from the species which von Möller described and illustrated, under the trivial name *princeps*. I thus arrive at the question: Should our concept of the genus *Schwagerina* von Möller be based upon the original specimens of “*Borelis princeps*” Ehrenberg—the genotype of *Schwagerina* von Möller—or upon the material which Valerian von Möller had in hand when he named the genus? What will cause the least confusion, to return to Möller’s concept or to accept *Pseudoschwagerina* Dunbar & Skinner?

Since Dunbar and Skinner took the course they did, and since the International Commission did not act promptly in 1937 to save the generic name *Schwagerina* in the sense conceived of by von Möller, I believe that greater stability will be now introduced into zoological nomenclature by adopting the generic name *Schwagerina* von Möller as restricted by Dunbar and Skinner. Professor M. L. Thompson concurs that the Commission should stabilise the nomenclature of this group by rendering such a decision.

II.—THE SUBSEQUENT HISTORY OF THE CASE

4. The application received from Dr. Schenck in 1943 threw an entirely new light upon the present case, the original enquiry regarding which received from Dr. Dunbar in 1935 having evidently become out of date. Before Dr. Schenck’s application could be published in the *Bulletin*, it was necessary to clear up certain bibliographical obscurities, and this led to correspondence between Mr. Hemming and Dr. Carl O. Dunbar, Professor M. L. Thompson and Dr. Myra Keen, who, in the absence from the United States of Dr. Schenck on foreign service, kindly assisted also in this matter. In the following paragraphs extracts are given from this correspondence, in so far as the letters received dealt directly with question of the action which it was desirable should be taken by the Commission.

* The International Commission received a preliminary inquiry in regard to this case from Dr. Carl O. Dunbar in September 1935, but they never received any communication on this subject from Dr. Rauser-Chernousova. (int’d F.H.)

5. *Comment by Dr. Carl O. Dunbar (Yale University, Peabody Museum of Natural History, New Haven, Connecticut, U.S.A.) (extract from a letter dated 9th June 1943) : The following is an extract from a letter dated 9th June 1943 received from Dr. Carl O. Dunbar (Yale University, Peabody Museum of Natural History, New Haven, Connecticut, U.S.A.) :—*

When I first wrote to Dr. Stiles, on September 23rd 1935, I had just discovered that the types of the species which Möller had designated as genotype of *Schwagerina* do not have the internal characteristics which he supposed they had and which had later been assumed to characterise that genus. At that time it seemed desirable to set aside that genotype in order to avoid the confusion of redefining the genus *Schwagerina*. On the other hand, a strict interpretation of the Rules appeared to make it obligatory to interpret the genus in accordance with its named genotype, and, unless the Commission would agree to set aside the designated genotype, there appeared to be no alternative. In view of the then dormant condition of the Commission, I decided to stick to the Rules and redefine the genus. Since then this new interpretation of the genus has become widely accepted and has been adopted in extensive publications in various parts of the world, and it would now appear to be extremely unfortunate if we should set aside the rules and turn back to the older interpretation.

The essential facts were presented in the following publication : *Schwagerina* versus *Pseudoschwagerina* and *Paraschwagerina*, by Carl O. Dunbar and John W. Skinner, *Journal of Paleontology*, vol. 10, 1936, pages 83—91, and plates 10—11.

The genus *Schwagerina* was proposed by von Möller in 1877 in a short paper in which he redefined and restricted the genus *Fusulina* and proposed three new genera for the excluded species, the first of which genera was *Schwagerina*. The remaining two genera were distinguished essentially on wall structure, but *Fusulina* and *Schwagerina* were distinguished chiefly on the basis of form, the first including long, slender, fusiform species, and the latter those of globular shape. The original diagnosis of *Schwagerina* was followed by the words, "Als eine typische Form derselben sehe ich die *Schwagerina princeps* Ehrenb. an", and this bears a footnote reference to Ehrenberg's original description and figures of that species. This appears to constitute a definite designation of the genotype and has been so considered by later workers. Furthermore, this species, and no other, has been repeatedly cited by subsequent authors as genotype. For example, Staff (1909, p. 506) cited it in this form, "Typus : *Schw. princeps* Ehrenberg".

Möller's paper bore the title "Ueber Fusulinen und ähnliche Foraminiferen-Formen des russischen Kohlenkalkes (Vorläufige Notiz)". It was written in general terms and does not refer to any particular

material which he may have had under study. It may be presumed that it was based upon the literature. In this paper Möller did not describe the genotype species. About a year later, he applied the name *Schwagerina princeps* to a globular shell superficially resembling *Borelis princeps* Ehrenberg, but one which we now know has a very different interior. The shell which he then figured had a tightly coiled juvenarium, followed by abrupt and rapid inflation, and this character subsequently came to be regarded as the diagnostic feature of the genus *Schwagerina*. Meanwhile, however, the real *Borelis princeps* Ehrenberg was never restudied until the original types were loaned to Dunbar through the kindness of Dr. O. H. Schindewolf, director of the Reichsmuseum in Berlin. The study by Dunbar and Skinner, in 1936, showed that the expansion of the shell is gradual in the original type of the named genotype and that it has the character for which Dunbar and Skinner had previously proposed the name *Pseudofusulina*. Accordingly, *Pseudofusulina* was thrown into synonymy of *Schwagerina*, and the latter was rediagnosed in accordance with the named genotype. *Schwagerina* was used in this new sense by Dunbar and Skinner in a monograph on the Permian Fusulinidae of Texas, in 1937, and has now been adopted by most all of the specialists in the study of this group, both here and abroad. For example, it was accepted in a postscript to a big monograph by Huzimoto in Japan in 1936, and I know from personal communication is accepted by Hanzawa in Japan, and by Chen in China, and it was accepted by Kahler and Kahler in a monograph on fusulines from the Carnic Alps in 1937, and was adopted by a committee of Russian specialists who published the Atlas of the Leading Forms of the Fossil Fauna of the U.S.S.R., volume 6, The Permian, in 1939. In America it has been adopted by Henbest, and Needham, and Cushman, as well as by Skinner and Dunbar, and it is already widely used by stratigraphers. In fact, the name *Schwagerina* has probably been more extensively used in this new sense since 1936 than it was used in the other sense in all the preceding years. Accordingly, it would now cause more confusion to set aside the Rules of Nomenclature and return to the previous erroneous interpretation than it would to preserve the new usage. In short, the situation has completely changed since I first wrote to Dr. Stiles.

6. *Comment by Professor M. L. Thompson (University of Kansas, Lawrence, Kansas, U.S.A.) (extract from a letter dated 27th September 1944)*: The following is an extract from a letter dated 27th September 1944 received from Professor M. L. Thompson (*University of Kansas, Lawrence, Kansas, U.S.A.*):—

It was long recognised by me and by other students of the fusulinids prior to the time that Dunbar and Skinner re-studied the type specimens of *Borelis princeps* Ehrenberg in 1936 that Möller might have misidentified his specimens in 1877 as belonging to Ehrenberg's species.

Therefore, it was recognised that our concept of the genus *Schwagerina* might have been erroneous. The opinion was published by me and others prior to 1936 that after a study of Ehrenberg's types by modern methods, it might be necessary that the genus *Schwagerina* be redefined. However, there was little, if any doubt expressed by anyone prior to 1936 that the type of the genus *Schwagerina* Möller, 1877, was *Borelis princeps* Ehrenberg, 1842.

I cannot feel certain that Möller ever actually examined Ehrenberg's type specimens of *Borelis princeps* before he proposed the genus *Schwagerina* in 1877. Yet I am not sure but that he may have examined Ehrenberg's specimens. At the same time it cannot be demonstrated that in 1877 Möller thoroughly understood the nature of the species which he described the following year as *Schwagerina princeps* and which Rauser-Chernousova renamed *Schwagerina moelleri* in 1936. I believe the correction and reclassification proposed by Dunbar and Skinner has done much to stabilise our classification of the fusulinids, and that the temporary confusion that their discovery may have caused has practically ceased to exist. That is certainly true among most specialists of the fusulinids. At least it is certain that confusion would be repeated again if *Schwagerina* were to be redefined at this time.

7. Dr. Schenck's application (paragraph 3) was sent to the printer in September 1944, but, owing to difficulties arising from paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until March 1947 (*Bull. zool. Nomencl.* 1 : 271—272).

8. *Comment by the Joint Committee on Zoological Nomenclature for Paleontology in America (dated 6th November 1947)*: The publication of the present application in the *Bulletin* elicited support for the action proposed from the Joint Committee on Zoological Nomenclature for Paleontology in America. The views of the Joint Committee were notified to the International Commission in a letter dated 6th November 1947 from Dr. J. Brookes Knight (*Research Associate, United States National Museum, Washington, D.C., U.S.A.*), who at that time was Chairman of the Joint Committee. The following is the text of Dr. Knight's letter :—

On 3rd July 1947 the Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America submitted to the membership of the Committee for consideration and approval a resolution on the above subject. The resolution (as well as some others submitted on the same date) was the result of a recommendation of Prof. Gayle Scott, a former member of the Committee. Since it contains some points that may be relevant to the Commission's consideration of

Prof. Schenck's petition the Chairman's letter laying the resolution before the Committee is quoted :

Professor Scott comments as follows :—

It is my thought that Dunbar and Skinner were entirely legalistic and followed the correct course. Von Möller did name *princeps* as the type of *Schwagerina*. The fact that he misidentified specimens in his hands does not affect the legal standing of his designation.

In the case Schenck does not ask for suspension of the *Règles* but an affirmation of the course taken by Dunbar and Skinner in recognising "legally" that the type of *Schwagerina* is *Borelis princeps* Ehrenberg, not what von Möller misidentified as that species. Since the action of Dunbar and Skinner, although strictly legal, did cause great confusion for a period of years both in zoological and stratigraphical nomenclature, there might have been made a good cause for suspension at the time they wrote. Actually I am informed that Dunbar did take it up with the Secretary of the Commission but since the Commission was then inactive for various regrettable reasons he received no reply and, in default of one, felt constrained to act strictly in accordance with the *Règles*.

One might argue that, because the great bulk of the really important literature on fusulinids was written in the last few years and embodied the strictly legal action of Dunbar and Skinner in recognising *Borelis princeps* Ehrenberg as the genotype of *Schwagerina* von Möller, no action by the Commission is necessary. However, a small residuum of confusion persists in that a few workers still refuse to abide by the *Règles* and have seemingly considered asking for Suspension. Hence Schenck's proposal that the Commission place *Schwagerina* on the official list with *B. princeps* Ehrenberg as its genotype seems a wise one.

Therefore I present to you the following resolution for your action :—

RESOLVED : That the Joint Committee on Zoological Nomenclature for Paleontology in America support the petition of H. G. Schenck that the generic name *Schwagerina* von Möller, 1877, be placed on the official list with *Borelis princeps* Ehrenberg, 1842, as its genotype.

The vote on the Resolution was 11 committeemen in the affirmative with no committeemen in the negative. Stenzel was away and did not vote. Comments were as follows :—

Romer—Agree to resolution, although with regret that inactivity prevented suspension of the Rules here earlier.

Keen—It should be noted that there is a typographical error in the petition by H. G. Schenck as printed in the *Bull. zool. Nom.* vol. 1, pt. 11, p. 271. The generic name is *Borelis*, not *Borealis*. Although

there seems to be no opportunity of correcting this error, at least the recommendation of our Committee should not perpetuate it.

The Commission will note that the Committee's Chairman has acted on Keen's suggestion and has corrected *Borealis* to *Borelis*. It suggests that the Commission do likewise if it issues an *Opinion*.¹

In view of the above unanimous vote, the Joint Committee hereby transmits its Resolution to the Commission.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

9. Before dealing with the present application, the International Commission on Zoological Nomenclature at its Paris Session in 1948 considered, and formulated recommendations regarding, the provisions which it was desirable should be inserted in the *Règles* on the subject of the species to be accepted as the type species of a nominal genus established on a misidentified species. This general question was considered by the Commission at the Sixth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on 22nd July 1948 at 1700 hours. The recommendation which the Commission then agreed to submit to the Paris Congress and which was later approved by that Congress was that there should be inserted in the *Règles* a provision prescribing: (1) that in any given case the initial assumption to be adopted should be that the author of a generic name had correctly identified the nominal species referred by him to the genus so named; (2) that, where, on evidence being furnished by specialists, the Commission was satisfied that the foregoing assumption, as applied to the species designated or indicated or later selected as the type species of the genus concerned was incorrect, it should be required to use its Plenary Powers to designate, as the type species, the species intended by the original author when citing the name of the erroneously determined species, or, if the identity of that species was doubtful, a species in harmony with current nomenclatorial usage, save that, where the Commission was of the opinion that confusion would result from so doing, it should be its duty to direct the acceptance of the designation, indication, or, as the case might be, the selection, as the type species, of the nominal species cited by the original

¹ This error has been corrected wherever it would otherwise have occurred in the present *Opinion*.

author of the genus. The full text of the recommendation so adopted is given in the Official Record of the Proceedings of the International Commission at its Session held in Paris in 1948 (Paris Session, 6th Meeting, Conclusion 38) (1950, *Bull. zool. Nomencl.* 4 : 158—159). The foregoing decision was reviewed by the Fourteenth International Congress of Zoology at its meeting held at Copenhagen in 1953, but the only changes made were concerned either with matters of drafting or with other aspects of the general problem involved and did not in any way affect the substance of the decision taken by the Paris Congress (1953, *Copenhagen Decisions zool. Nomencl.* : 68—69).

10. The present application was considered by the International Commission on Zoological Nomenclature in the light of the decision summarised in the preceding paragraph at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The Commission then decided that the present was a case where the proper course would be to make use of the escape clause which it had inserted in the provision which it had agreed to submit to the Paris Congress on the general principle involved (paragraph 9), that is, that it should expressly rule that, notwithstanding the error of identification made by von Möller, when in 1877 he established the nominal genus *Schwagerina*, it was not desirable in existing circumstances to use the Plenary Powers to rectify the mistake so made. The Commission decided, therefore, to approve Dr. Schenck's application (paragraph 3) that the true nominal species *Borelis princeps* Ehrenberg, 1842, should be officially accepted as the type species of the genus *Schwagerina* Möller, 1877. The following is an extract from the Official Record of the Proceedings of the International Commission at its Paris Session setting out the decision reached by it at the foregoing meeting in regard to this matter (Paris Session, 14th Meeting, Conclusion 18) (1950, *Bull. zool. Nomencl.* 4 : 461—464) :—

THE COMMISSION agreed :—

- (1) to place on record their regret at the delay which had occurred in reaching a decision on the present case,

a delay which, the Commission recognised, had prejudiced the issues involved ;

- (2) that, under the *Règles* the type species of the monotypical genre *Schwagerina* von Möller, 1877 (Class Rhizopoda, Order Foraminifera) was the species *Borelis princeps* Ehrenberg, 1842, the sole species cited by von Möller, when he first published the name *Schwagerina*, and not the species which that author had misidentified with the foregoing species and had before him when he established the foregoing genus, which, specialists were agreed, was the species that was at that time unnamed but had since received the name *Schwagerina moelleri* Rauser-Chernousova, 1937
- (3) that, having regard to the delay referred to in (1) above, and without prejudice to the decision which might have been taken if the case had been dealt with promptly and before therefore the situation had developed in the way that it did subsequent to 1935, it was not desirable in existing circumstances to use the Plenary Powers to vary the application of the *Règles* in the present case :
- (4) in view of (3) above to place the undermentioned generic names with the type species severally specified below, on the *Official List of Generic Names in Zoology* :—
- Schwagerina* von Möller, 1877 (Class Rhizopoda, Order Foraminifera) (type species, by monotypy : *Borelis princeps* Ehrenberg, 1842)
- Pseudoschwagerina* Dunbar & Skinner, 1935 (Class Rhizopoda, Order Foraminifera) (type species, by original designation : *Schwagerina uddeni* Beede and Kniker, 1924) ;
- (5) to place the undermentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
- moelleri* Rauser-Chernousova, 1937 (as published in the binominal combination *Schwagerina moelleri*)
- princeps* Ehrenberg, 1842 (as published in the binominal combination *Borelis princeps*)
- uddeni* Beede and Kniker, 1924 (as published in the binominal combination *Schwagerina uddeni*) ;

(6) to render an *Opinion* recording the decisions specified in (2) to (5) above.

11. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

- moelleri*, *Schwagerina*, Rauser-Chernousova, 1937, *Bull. Acad. Sci. URSS* (Cl. sci. math. nat.) **1936** : 578—579
princeps, *Borelis*, Ehrenberg, 1842, *Ber. Bekanntmachung geeign. Verh. K. Preuss. Acad. Wiss. Berlin* **1842** : 274
Pseudoschwagerina Dunbar & Skinner, 1936, *J. Paleont.* **10** : 83—91
Schwagerina von Möller, 1877, *N. Jahrb. Min.* **1877** : 143
uddeni, *Schwagerina*, Beede & Kniker, 1924, *Univ. Texas Bull.* No. **2433** : 27, pl. 1, figs. 1, 2 ; pl. 4, fig. 10 ; pl. 6, figs. 1—2, 5—7

12. The genders of the generic names *Schwagerina* von Möller, 1877, and *Pseudoschwagerina* Dunbar & Skinner, 1935, referred to in the decision quoted in paragraph 10, are feminine.

13. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Sixth Meeting held on Monday, 26th July, 1948 (1950, *Bull. zool. Nomencl.* **5** : 114).

14. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

15. The ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

16. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

17. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

18. The present *Opinion* shall be known as *Opinion Two Hundred and Thirteen* (213) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Sixth day of November, Nineteen Hundred and Fifty-Three.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING